What's Wrong with the Confectionery Industry?

(*Continued from the editorial page of the March*, 1925, *issue of The Manufacturing Confectioner*)

It is rather interesting to note how many of the trials and troubles and tribulations and adverse conditions, as tabulated in our March issue, exist for want of *organized, constructive co-operation*. The low average profit made by the manufacturers of the industry as a whole can be brought up to a healthy standard when executives get together in a sincere, constructive spirit, determined to make a profit by fair, legitimate methods from the sales of quality goods. Underscore "quality," for all the ideal co-operation in the world will never profit the producers in any permanent way unless the consumer's viewpoint in respect to eating quality is given first consideration.

At this convention season of the year we are very apt to concentrate our discussions on the evils of the industry to an extent which is depressing. Therefore let's throw the spotlight in the other direction and see what we find to encourage us:

What's Right with the Industry?

The following "assets" of the confectionery industry have been tabulated at the time we made up the "trouble chart" for our Sales Managers' Number from a digest of the speeches and discussions at the various candy conventions and meetings this year:

The Confectionery Industry's Assets

American People have the candy habit—Gimbal.

Candy Earns More Profit Per Unit of Floor Space than any other class of merchandise—Mr. Drury.

Candy Is Paid for in Cash—not charged on the grocer's books—A. F. L. Schmidt.

Candy Greatest "Leader" Value—brings people in the store—Geo. T. Peckham.

Candy Has Greatest Caloric or Food Value.

Candy Is the Most Value Per Dollar Expended. What other product can be purchased for the price of a box of fine candies which is as acceptable for gift purposes! What product other than candy can be purchased at pre-war prices?—Malcolm McDonall.

Candy Is the Ideal "Messenger of Sentiment." "No product is more expressive of the finest sentiments exchanged between children of the earth"—Western Confectioners Association.

These expressions of optimism were almost drowned out, at least very much overshadowed, by the discussions of business troubles and problems and how to combat them. However, it is refreshing to know that there is at least a minority group of sterling individuals with high ideals who possess a great faith in the future of the confectionery industry—men who have a "pride of craft" and who possess the courage to blaze new trails and new and higher standards for the betterment of the industry of which they are a part.

Is This Sales Manager Right or Wrong?

IN discussing sales policies with firms in other lines, one or two rather interesting viewpoints have been developed. One firm endeavors to spread its sales over as large a territory and among as many customers as possible. They believe that it is better not to try to get "all the business in sight." It is easier and less expensive to sell twelve firms twenty per cent of their total requirements than to get orders from six firms for forty per cent of their entire business. This company claims that if you endeavor to secure a large percentage of a man's total business you meet with an increasing sales resistance, not only from the man himself but indirectly from your competitor. The minute the competitor sees that you are getting business away from him, he will increase his competitive effort to such an extent that it will make it much more difficult for you to secure business.

By this policy the sales manager claims to be securing a larger volume of business more easily and with less expense than he could if he endeavored to get the last dollar's worth of business out of every customer. Furthermore, by trying to sell each customer only those lines which will sell most readily and in the largest volume, he believes it is possible to keep a steady flow of orders coming in. The policy of this firm is summed up in the following statement:

> *"Don't fight so hard for business that you will arouse your competitor's antagonism. Let your competitors fight among themselves, while you go along and secure a moderate volume of business from a large number of customers."*

Transonia Notch from Arst Bluff, near Boston

Convention Attractions

A SPLENDID opportunity is afforded the confectioners, who are planning to attend the Boston convention early in June, to combine their business session with a New England vacation. Most of the mountain and seashore resorts are just opening during the convention week and none of the great hotels will be crowded at that time as they will be later in the season. Rates somewhat under the July and August scale of prices are offered for June vacations. The historical and scenic attractions of Boston will keep the visitors and their families busy sight-seeing during convention week and limitless opportunities following the close of the convention.

The Boston committee has made special arrangements with Denny B. Goode, manager of the Convention and Tourist Bureau of the Boston Chamber of Commerce, to furnish information in advance to visitors who are planning to attend the Boston convention. Mr. Goode will forward road maps giving driving directions to those who are planning to drive through in their cars, or will assist those who apply to arrange schedules or other vacation plans.

No other region in the world possesses all the possible combinations of recreation, in such superlative degree, compressed within so limited an area, as does New England.

Along Long Island Sound or Cape Cod a delightful tour lies extending to the far-famed north and south shores to Casco Bay and on to the Canadian provinces beside the lakes and through woodlands of Maine, across the White Mountains through the scenically beautiful notches, into the New Hampshire and Vermont lake country. A glorious panorama bursts upon one as he reaches the Green Mountains or drives down the Merrimac or Connecticut valleys into the Berkshires. Everywhere he finds hotels so charming that he wishes a night's stop could be prolonged into weeks and a short vacation extended into another season.

Very likely, the visitor is a great, great grandson of New England ancestry and revels in the rich historical associations abounding throughout the entire region. In Boston alone, or Portsmouth, or Concord, or Portland, or a score of other cities and towns, he will find historical markers, intimately connected with the very beginning of the American commonwealth.

Each season possesses its own individual charms. Every section of New England is distinctively alluring.

Official Convention Program

Tuesday, June 2nd

10:00 A. M.

Meeting of the Executive Committee—
Mr. Walter H. Belcher, Chairman.
The Committee will meet in Paul Revere Hall, Mechanics Building.

8:00 P. M.

Meeting of Package Goods Manufacturers—
Mr. Wilfrid I. Booth, Chairman.
The meeting will be held in Paul Revere Hall, Mechanics Building.

8:00 P. M.

Meeting of Resolutions Committee—
Mr. George T. Peckham, Chairman.
The meeting will be held in one of the small halls adjoining Paul Revere Hall in Mechanics Building as announced on Bulletin Board.

8:00 P. M.

Secretaries' Conference—
The meeting will be held in one of the small halls adjoining Paul Revere Hall in the Mechanics Building as announced on the Bulletin Board.

Convention Sessions

All sessions of the Convention will be in Paul Revere Hall on the Second Floor of Mechanics Building on Huntington Avenue. The entrance is at the corner of the building.

Wednesday, June 3rd

Forenoon—First Session

(This session will be open to all)

Meeting called to order 10:30 a. m.—
Mr. Walter H. Belcher, President.

Address—
Mr. Clifford S. Anderson,
President, Assoc. Industries of Mass.

President's Address—
Mr. Walter H. Belcher, President.

In Memoriam—
Mr. Walter H. Belcher, President.

Announcement of the Appointment of Special Committees—
Mr. Walter H. Belcher, President.

Wednesday, June 3rd

Afternoon—Second Session

(This session will be open to all)

Meeting called to order 2:30 p. m.—
Mr. Walter H. Belcher, President.

Report of Secretary-Treasurer and Executive Committee—
Mr. Walter C. Hughes, Secy.-Treas.

Address: "Merchandising Policies"—
Dr. Melvin T. Copeland, Harvard Graduate School of Business Administration, Cambridge, Massachusetts.

Investigations of the Carbo-Hydrate Laboratory, United States Bureau of Chemistry relative to Bursting Fermentation of Cream Goods—
Mr. Herman L. Heide,
Chairman Committee Co-operation.

Thursday, June 4th

Forenoon—Third Session

(This session will be open to all)

Meeting called to order 10:00 a. m.—
Mr. Walter H. Belcher, President.

Address: "Commercial Arbitration as an Aid to Business"—
Judge Moses H. Grossman,
Acting President of Arbitration Society of America, New York City.

Discussion—
Mr. V. L. Price.
Mr. Herman W. Hoops.

General Discussion—
Other members from various sections have been asked to take part in the discussion and will be called upon by the president. All members are urged to participate.

Thursday, June 4th

Afternoon—Fourth Session

(This will be an Executive Session. Only Honorary Members, Active Members and their Representatives may take part in this session.)

Meeting called to order 2:00 p. m.—
Mr. Walter H. Belcher, President.

Address: "The Merchandising of a Specialty"—
Mr. Geo. H. Williamson,
Williamson Candy Co., Chicago, Ill.

Discussion—
To be taken up by various members prepared to speak briefly on this subject.

Address: "The Merchandising of Bulk Goods and Staples"—
Mr. Walter O. Caldwell,
O. H. Peckham Factory, St. Louis, Missouri.

Discussion—
To be taken up by various members prepared to speak briefly on this subject.

The Resolutions Committee will submit an initial report and resolution relative to Co-operative Advertising by the Industry—
Mr. Geo. T. Peckham, Chairman.

Response—
This is the subject about which there has been much interest and much correspondence. This resolution will be discussed at length by Mr. V. L. Price, Director of Publicity, and by various other members who have been asked to participate.

Report of Nominating Committee—
Mr. R. R. Cleeland, Chairman.

Election of Officers and Members of the Executive Committee.

Friday, June 5th

Forenoon—Fifth Session

Meeting called to order 10:30 a. m.—
Mr. Walter H. Belcher, President.

Report of Committee on Resolutions—
Mr. Geo. T. Peckham, Chairman.

General discussion on resolutions as submitted by the Committee.

Adjournment.

Visit the Exposition of Confectioners' Supplies and Equipment

Held Under the Auspices and Management of the National Confectioners' Association of the U. S.

Boston, Mass., June 1-5, 1925
in Mechanics Hall

THE Annual Convention of the National Confectioners' Association will also be held in Mechanics Hall on the floor above the Exposition—all under one roof. Bring your key men who are in charge of purchasing and production and take this occasion to meet the executives of the supply field who are earnestly endeavoring to meet the needs of the confectionery industry. Much constructive and progressive thought emanates from the allied industries; these leading supply firms are good friends of the confectionery industry, and much good will result from a closer personal acquaintance and a co-operative relationship with the heads of the firms who manufacture our factory supplies and equipment.—Editor.

With the Exhibitors to the Manufacturing Trade:

As of May 10th, 1925

Allis-Chalmers Manufacturing Co., Milwaukee, Wis. (No. 29.) Exhibiting: The American Candy Pulling Machine; factory and retail confectioner's models will be shown in operation. In attendance: A. M. Marsh, T. J. Lynch, W. N. Ober, R. E. Weins, J. P. Hines and R. J. Hearn.

Aluminum Company of America, New Kensington, Pa. (No. 125.)

American Can Company. (No. 58-59.) Exhibiting: Samples of metal candy containers of varied styles, sizes, etc. Also their line of fancy boxes from their "Beaute Box" department. The exhibit promises to be very unique, along the lines of their exhibit at the Canners Exposition at Cincinnati. In attendance: Mr. Eberhard with Mr. Kirkpatrick of Boston Office, and some ten or twelve salesmen.

American Scrubbing Equipment Company, Hannibal, Mo. (No. 80.) Manufacturers of Finnell System of Electric Scrubbing. Exhibiting: Featuring the No. 15 and No. 17 Finnell Scrubbing Machine. The No. 17 is a new machine especially adapted to the confectionery plant, has large capacity and is convenient and easy to handle; can be operated freely under fixtures six inches from the floor and flush with baseboards and into corners. Exhibiting also the No. 2 mop truck with patent mop shield under wringer over dirty water tank, which insures clean mops at all times. The No. 4 Finnell Mop Truck is for a much smaller floor area. The exhibit will be in charge of Mr. J. H. Lindstrom, Eastern Division Sales Manager, assisted by H. K. Berger, District Manager New York City, and Mr. C. D. Sheldon, District Manager, Hartford, Conn.

American Machine & Foundry Company, 5520 Second Avenue, Brooklyn, N. Y. (No. 15 and 30.) Exhibiting: The "American" Almond Bar Wrapping Machine, the Standard Wrapping and Heat Sealing Machine, also the Standard Duplex Wrapping Machine. In attendance: Mr. L. McG. Demarest, General Sales Manager, and Thomas F. DuPuy of the Sales Department.

Anheuser-Busch, Inc., St. Louis, Mo. (No. 35.)

The Aridor Company, 579 East Illinois Street, Chicago, Ill. (No. 57.) Exhibiting: The "Aridor" display jars and fixtures and featuring, as Mr. Moyer says, "a few more new items which we expect to show for the first time to the manufacturing confectioners and we, of course, anticipate creating a considerable amount of enthusiasm for our newer offerings. They are not of a nature which it would be possible for us to explain to you, and we believe that it probably would be better not to put out any advance notices regarding them. All we can say is that we believe that we have some new ideas which will be of tremendous advantage to the confectionery business in general." In attendance: Mr. Paul S. Moyer, President; Martin Cassell and Louis Weigert.

Louis, Mo. (No. 127.)

Mechanics Hall, Boston, Mass., Where the N. C. A. Convention and Exposition Will Be Held June 1-5.

Associated Cooperage Industries of America,

Atlantic Gelatine Company, Woburn, Mass. (No. 65-66.) Exhibiting: Complete line of samples of "Atlantic Pure Food Gelatine" for confectioners' use. The main office and factory is located only a very short ride from Boston and arrangements will be made to take visiting confectioners by automobile to the Atlantic factory at Woburn. A special invitation is extended to all candy men to take advantage of this opportunity to see a modern American gelatine plant and meet the chemists and executives of the company. In attendance: J. H. Cohen, Vice-Pres.-Genl. Mgr., D. C. Babcock, General Sales Manager; A. F. Vyse, Manager Chicago Office; J. A. Williams, A. C. Bernard, W. T. Turner and W. F. Jose of the Sales Department.

Bendix Paper Company, 113 Fourth Avenue, New York City. (No. 82-83.) Exhibiting: Paddings, such as Watoline, Globular Parchment, and in fact, "Everything for the candy box except the candy!" "Our exhibit will feature," says Mr. Kingsbury, "examples of labels and wraps which we have produced for the foremost manufacturing confectioners throughout the United States and Canada. In attendance: Mr. P. R. Bendix, R. L. Magaw, C. W. Kingsbury, R. H. Harding, F. B. Ludwig and H. D. Bodwell.

Bentz Engineering Corporation, 661 Frelinghuysen Avenue, Newark, N. J. (No. 12.) Exhibiting: "Coldbed Chocolate Cooling and Packing tables with CHILLBLAST for supplying refrigerated water and conditioned air. We hope to have one or two other exhibits of equipment ready but cannot make any definite statement about them at this time." In attendance: Harry Bentz, President; Stuart Bentz and A. G. Luders, Vice-Presidents; W. E. Lowell, Western Manager.

Betts Products Co., Chicago, Ill. (No. 97.)

Blanke-Baer Extracting & Preserving Co., 3224 Kingshighway, St. Louis, Mo. (No. 38.) Exhibiting: The "Win-You" Brand flavoring extracts and preserved fruits for the confectionery trade, featuring dipping fruits. In attendance: Dr. S. H. Baer, President; J. B. O'Connor and L. T. Skidmore, Eastern Representatives.

Blackmer Rotary Pump Co., Petoskey, Michigan. (No. 52.) Exhibiting: The Blackmer Rotary Pumps for confectioner's syrups, chocolate and heavy liquors of any kind. Electric and belt-driven types, also hand pumps and a demonstrating unit which will show the merits of the BLACKMER Pumps. In attendance: A. C. Schaeffer, General Sales Manager; A. C. Davies, District Sales Manager, Boston; A. L. Rock of New York Sales Office.

Emil J. Brach, Confectionery Machinery, 4656 W. Kinzie Street, Chicago, Ill. (No. 71.) Exhibiting: The Brach Premier Unit (worm gear drive) for production of hard candies. In attendance: Mr. P. V. Galvin, Manager.

M. A. Brown Paper Box Co., St. Louis, Mo. (No. 17.) Fancy Candy Boxes.

The Brunhoff Manufacturing Co., York and Freeman Avenue, Cincinnati, Ohio. (No. 103.) Exhibiting: Samples of candy display fixtures, display tops for candy containers, display racks and various display equipment which has been developed by the Brunhoff Service Department for manufacturing confectioners the past few years. The BRUNHOFF display material is becoming standard equipment for the successful merchandising of candy in a clean, sanitary way. In attendance: Henry E. Brunhoff; Mr. Noyes, Secretary and Treasurer; Mr. Lakamp, Manager of New York Office, and Mr. Robert Wydman.

B. H. Bunn Company, 7329 Vincennes Avenue, Chicago, Ill. (No. 1.) Exhibiting: Three models of the BUNN Package Tying Machines. In attendance: H. E. Bunn, Vice-President; and Mr. Maxwell Lind, Eastern Representative.

Bureau of Chemistry, U. S. Dept. of Agriculture. Washington, D. C. (No. 9.)

Jos. Burnett Co., Boston, Mass. (No. 22.) Flavoring Extracts.

Candy & Chocolate Equipment Co., New York City. (No. ...)

Clinton Corn Syrup Refining Company, Clinton, Ia. (Booths Nos. 62 and 63.) Dr. A. P. Bryant, Manager of Operations, says "This will be a reception booth where we will receive our friends. There will be two or three members of our organization present."

Consolidated Steel Strapping Co., 2600 N. Western Avenue, Chicago, Ill. (No. 89.) Exhibiting through their Boston Branch Office a complete line of packing re-inforcement supplies, including their latest type of machines and tools for applying flat and round wire to wood and fibre cases. Their devices and supplies are widely used by manufacturing confectioners both for strengthening cases as well as for prevention of pilfering, and will prove of interest to those not familiar with them. They will also exhibit a full line of pail clasps, such as are commonly used on candy pails, also corner irons, corrugated fasteners, etc., etc. The exhibit will be in charge of Mr. R. D. Livingston, District Manager for New England, whose varied experience in and wide knowledge of packing and packing problems will be at the service of attending members. Mr. Livingston will be assisted by Messrs. T. E. Noon and Harlow Schenkelberger.

Continental Paper & Bag Mills Corp., New York, N. Y. (No. 81.)

W. M. Craig Sales Company, 315 Orpheum Bldg., Wichita, Kansas. (No. 138½.) Exhibiting: The Jewel Nut Warmer. In attendance: Mr. W. M. Craig.

Crescent Manufacturing Co., Seattle, Wash. (No. 32.) Mapleine.

Crystal Gelatine Company, Boston, Mass. (No. 48.) A special display will be made of marshmallow gelatine and it is planned to have several barrels of marshmallows on hand from which to distribute samples. These marshmallows will be made of Extra A, the highest grade of Crystal Marshmallow Gelatine. Mr. George W. Gethro and Mr. George Breckenridge will be in charge; also Mr. Rollston and Mr. Owen of the Sales Department.

Donald F. Duncan, 165 N. Elizabeth Street, Chicago, Ill. (No. 138.) Exhibiting: Two brand new candy containers. One is a new Cedar Chest. The other—well, Mr. Duncan says this is his "surprise box" and would introduce it to the confectionery trade for the first time at the Convention. Mr. Duncan says that he will show some of the latest models in Cedar Chests. Two models being entirely different from any on the market at the present time. In attendance: Donald F. Duncan, George Brodkin, Eastern Sales Manager; E. T. Peterson, Factory Supt.; and E. H. Bergin, Special Representative.

Dennison Manufacturing Co., Framingham, Mass. (No. 102.) Exhibiting: Confectioners' tags, labels, seals and ribbon cards, together with candy boxes and crepe paper for window display purposes. In attendance: Mr. Paul Moore of Boston Sales Force, and Mr. James J. Macdaid, Jr., head of the Window Decorating Service Department. They plan to show actual windows decorated with crepe paper to display confectioners' products, and hope to have Mr. Macdaid available to demonstrate window decorating with crepe paper.

Thomas W. Dunn Co., 546 Greenwich Street, New York City. (No. 13.) Exhibiting: All grades of Gelatine; Granulated, Shred, Sheet and Fine Leaf Gelatine, especially produced for the Candy Industry. In attendance: Mr. F. E. Hollweg, Mr. A. C. Haas, Mr. E. B. Clancy and Mr. E. Kamp.

Eastern Manufacturers' Traffic Bureau, New York. (No. 3.)

Eppelsheimer & Co., 34 Hubert Street, New York City. (No. 140.) Exhibiting: Chocolate molds consisting of fancy pieces, bars, cakes, pans, etc. Also double molds for making hollow chocolate figures such as rabbits, eggs and novelties suitable for all occasions. Will also exhibit a few ice cream molds. In attendance: Mr. W. H. Warren, Mr. J. D. Warren, H. A. Shera and J. Kingsley.

Essex Gelatine Company, 40 N. Market Street, Boston, Mass. (No. 74.) Exhibiting: Samples of marshmallow and confectionery made with "SX" Gelatine. In attendance: Lewis B. Esmond, Manager; Stanley Casler, Robert E. MacFarland, Herbert K. Beiser.

Ferguson & Haas, Inc., 521 Greenwich Street, New York City. (No. 94.) Exhibiting: Sucker Wrapping Machine; the printed wrappers which are fed from a roll will have a design requiring close register. The machine will be demonstrated daily. In attendance: E. Haas, M. B. Ferguson, A. B. Hull.

The Fleischmann Transportation Co., Balsa Box Department, 699 Washington Street, New York City. (No. 142.) Exhibiting: Various types and sizes of the new shipping container known as the Balsa Wood Boxes. The exhibit will demonstrate the lightness of the wood, the construction of the box, the insulation qualities and many other features which will permit various shippers to solve their shipping problems. In attendance: G. L.

Weeks, Jr., Asst. to General Manager; W. E. Kelly, District Traffic Manager; W. L. Cunliffe, Representative.

Foote & Jenks, Jackson, Michigan. (No. 67.) Exhibiting: Foote & Jenks Citrus Concentrates, and other specialties designed especially for the candy maker's use. In attendance: T. J. Torjusen, New England Representative; C. R. Foster, Vice-President; C. H. Redding, General Sales Manager.

The Foxon Company, Inc., 225 W. Park Street, Providence, R. I. Exhibiting embossed box tops, designs and merchandising suggestions for package goods manufacturers. In attendance: Frank P. Ingalls, President; B. Richard, Vice-President; A. K. Paul, Treasurer and General Manager; M. Paul, Secretary and Sales Manager, assisted by the manager of their various branch offices.

The Franklin Sugar Refining Co. (No. 61.) Confectioners' Sugar.

General Electric Co., Schenectady, N. Y. (Nos. 4-5.)

J. W. Greer Co., 119 Windsor Street, Cambridge 39, Boston, Mass. (Nos. 84-87.) Exhibiting: The Greer Chocolate Coater, and Chocolate Cooling Equipment. In attendance: Mr. and Mrs. J. W. Greer, Fred W. Greer, Don S. Greer and Alfred Martini.

Ira L. Henry Co., Watertown, Wis. (No. 20.)

H. L. Hildreth Co., Boston, Mass. (No. 101 & 102.) Candy Pulling Machines.

Hobart Mfg. Co, Troy, Ohio. (No. 123.)

Hoffman Meyers Co., Inc., Pittsburgh, Pa. (No. 6.)

Hy-Sil Manufacturing Co., Revere, Mass. (No. 51.) Exhibiting: Their full line of tinsel ribbons, novelty ribbons and tying cords for the confectionery trade in much greater and more variety than ever.

Ideal Wrapping Machine Co., Middleton, N. Y. (No. 42.) Caramel Wrapping Machines.

The International Co., Baltimore, Md. (No. 50.) Flavors, Eggs and Cherries.

H. A. Johnson Co., Boston, Mass. (No. 88.)

Kay-White Products, Inc., 8 West Broadway, New York City. (No. 64.) Exhibiting: "Kay-White" full Cream Caramel Paste, Nougat Creme, a full line of K-W specialties for the manufacturing confectioner. In attendance: N. W. White, Carl Katzenstein, Sidney Rosenzweig.

E. R. Knott Machine Co., 1 Ellery Street, S. Boston 27, Mass. (No. 76.) Exhibiting: The Knott Improved Candy Pulling Machine, also featuring Potato Chip Machinery, and full line of Pop Corn Machinery. In attendance: E. R. Knott, President, assisted by Mr. Fries.

H. Kohnstamm & Co., Chicago, Ill. (Nos. 98 and 99.) Flavors, Colors and Extracts.

Lehmaier, Schwartz & Co., Inc., 511 W. 25th Street, New York City. (No. 122.) Exhibiting: Full line of Tin Foil packing specialties for the manufacturing confectionery trade. In attendance: L. S. Siegel, Secretary.

August Maag Co., Baltimore, Md. (No. 92.)

Magnus, Mabee & Reynard, Inc., 257 Pearl Street, New York City. (No. 36.) Exhibiting: Basic flavoring materials, essential oils and specialties. In attendance: Parker L. Tirrell, A. A. Corthell; and from the New York office, Dr. Frederick W. Brown, P. C. Magnus, President.

The Manufacturing Confectioner Publishing Co., 30 North La Salle Street, Chicago, Ill. (No. 78.) Exhibiting complete file of The Manufacturing Confectioner, prospectus of the 1926 edition of The Blue Book and announcing editorial program for the year. A reception booth where we hope to have the opportunity of meeting many of our readers and getting in closer personal touch with the individual problems and interests of the executives and practical candy men throughout the manufacturing fraternity of this industry. Make our booth your headquarters and call on us for any personal service which will make your convention trip both pleasant and profitable. In attendance: M. B. Kovnat, Vice-President; Ralph G. Wells, Associate Editor; R. W. Younie, Manager, New York Office, and Earl R. Allured, Editor-Publisher.

Thos. Mills & Bro., Philadelphia, Pa. (No. 75.) Manufacturers of confectioners' tools and machinery, will show their full line by means of an industrial film which, no doubt, will prove a novel feature and will be of interest to visiting confectioners. A few new devices of their latest designs will probably be shown on the floor. In attendance: John G. Mills, George M. Mills, George T. Mills.

The David J. Molloy Company, 2857 N. Western Avenue, Chicago, Ill. (No. 93.) [Creators and Manufacturers of high class book and catalog covers.] Exhibiting: An entirely different kind of candy box which has been tried out successfully for Mother's Day. The boxes are now ready for all seasons of the year. In attendance: Mr. Donker, F. E. Becker, Sales Manager.

Milwaukee Paper Box Co., Milwaukee, Wis. (No. 81.)

National Aniline & Chemical Company, 40 Rector Street, New York City. (No. 44.) Exhibiting: A range of the important Certified Food Colors, together with a variety of colored confections. In attendance: J. Young, Dr. F. E. Beecher, W. R. Moorhouse, F. W. Green, C. E. Blakeley, Dr. L. J. Matos.

National Art Company, 235 W. 23rd Street, New York City. (Nos. 39 and 40.) Exhibiting: Box wraps and Covering papers. In attendance: Vernon E. Kipp of Chicago, who handles the Western trade; Earle E. Cort, who represents the East.

National Bundle Tyer Company, Blissfield, Mich. (No. 79.) Exhibiting: Two new gravity Parcel Tying machines, one double tyer, placing two strings around the box parallel to each other at the same time, the other placing one string around the box; both of these machines are intended for use with conveyors; they are also equipped with packers that can be adjusted in most any tension so that there can be pressure placed upon the top of the box just as the knots

are being tied. Exhibit in charge of J. T. Carpenter, President.

National Confectioners' Association. (Nos. 112 and 120.)

National Equipment Company, Springfield, Mass. (Nos. 106 and 111.) Exhibiting: The Automatic Wood Mogul, Springfield Continuous Cooker, 24-in. Enrober and Cold Box, Bausman Battery, Bausman Disc Process for Chocolate Liquor. In attendance: Frank H. Page, A. Linton Bausman, George Bausman, George S. Sabin, Kenneth B. Page, Wm. G. Tucker, Howard C. Baum, B. E. C. Gillette, C. B. Turner, F. S. Moulton and Ralph Duchacek.

The Newcraft Sales Co., Boston, Mass. (Nos. 45 and 56.) Chocolate Coating Machine.

New England Manufacturing Confectioners Assn. (No. 2.)

New England Paper Box Co., New Haven, Conn. (No. 41.) Candy boxes.

The Nulomoline Company, 111 Wall Street, New York City. (Nos. 14 and 31.) Featuring the Service Department of The Nulomoline Company. Their practical men will be in attendance to answer questions about the manufacture of candy and to suggest methods for overcoming troubles in manufacture. The wide and varied experience of these men places them in a position to answer intelligently and concisely almost any questions that are brought to them. The Nulomoline Company will have some very instructive booklets which they will distribute, together with interesting formulas in which Nulomoline and their new product, Convertit, are used.

Henry H. Ottens Mfg. Co., Inc., 127 S. Front Street, Philadelphia, Pa. (No. 68.) Exhibiting: A line of various Confectioners' Specialties, Flavor Concentrates, Oleo Fruit Concretes and Certified Colors. Also a complete line of candies containing the above articles. In attendance: John A. Quill, William E. Weber, H. L. Lingle.

Package Machinery Co., Springfield, Mass. (No. 69.)

Read Machinery Co., York, Pa. (No. 33.)

Rueker & Kessler, Philadelphia, Pa. (No. 24.)

Savage Bros., Chicago, Ill. (Nos. 35 and 36.)

F. J. Schleicher Paper Box Co., 1811 Chouteau Avenue, St. Louis, Mo. (Nos. 143 and 144.) Exhibiting: An assortment of "Masterbuilt Candy Boxes." The Schleicher exhibit promises to be distinctive as we are advised that their master box crafters are turned loose to prepare something novel in the way of lighting and background art work. The booths will be in charge of B. F. Fischer and the three Schleicher boys—Louis, Allen and Frank ("specially Frank").

H. Schultz & Co., 519 W. Superior Street, Chicago, Ill. (No. 43.) Booth No. 43 will be a reception and rest room. Their exhibit of fancy candy and counter display boxes will be at the Lenox Hotel. In attendance: H. L. Dikeman and J. S. Leigh of the A. D. Shoup Company of Brooklyn; also F. P. Wagner, Jr., of H. Schultz & Company, Chicago.

Seaman Container Sales Corp. (No. 128.) Olean, N. Y.

Harold A. Sinclair, 160 Broadway, New York City. (No. 77.) Exhibiting: "Delft" Pure Food Gelatine. In attendance: Harold A. Sinclair, assisted by W. G. Ahern, H. T. Hall, H. Howland Sinclair.

Smith Scale Co., Columbus, Ohio. (No. 47.)

Stadler Photographing Co., Chicago, Ill. (No. 27.) 91. Official photographers for the N. C. A. Exposition. Exhibiting attractive photographic illustrations of confections and kindred merchandise. They will be prepared to make photographs of any exhibits at the wish of the exhibitors. H. D. Willis, manager the Eastern branch, will have charge of the exhibit.

A. E. Staley Manufacturing Company, Decatur, Ill. (No. 55.) Exhibiting: A full line of Staley Corn Products and samples of confectionery made with their products. Their letter of May 4th states: "It is our desire to be of real service to those industries which we serve, and we believe in the Confectioners' Convention largely because it does give us an opportunity of learning what problems the confectioner has, so that we can determine just where and how we can fit in to the best advantage." In attendance: A. E. Staley, President; E. K. Scheiter, Vice-President and General Sales Manager; Roy M. Ives, Sales Manager, Corn Syrup Department; G. E. Chamberlain, General Superintendent; Howard File, Chief Chemist. The following sales representatives will be present: L. R. Dickinson, Manager Boston office; Wm. H. Randolph, Jr., Manager New York Office; Walter Cooley, New York office; J. W. Hixson, Pennsylvania; Wm. R. Pope, New York State.

Wm. J. Stange Co., 2549 W. Madison Street, Chicago, Ill. (No. 34.) Exhibiting: A line of Flavoring Materials, Food Colors and Chemicals prepared exclusively for further use in the manufacture of candy. In attendance: R. J. Rooney, Vice-Pres. and Sales Manager; Walter H. Floyd, W. F. Leonard, E. E. Feight, B. G. Wahl, V. E. Berry.

Sugar Sanding Machine Company, 2325 Edmondson Avenue, Baltimore, Md. (No. 28.) Exhibiting: Two or three newest Sanding Machines with several improvements on which they have been working for some time. In attendance: Charles Mahan, President, and one demonstrator.

Sunland Sales Co-operative Association, 80 Federal Street, Boston, Mass. (No. 37.) Exhibiting: Displays of popular raisin confectionery pieces, as well as an interesting display of Sun-Maid Raisins adaptable to confectioners' uses. A confectionery demonstrator, regularly maintained by Sun-Maid, will be in attendance at the exhibit to give necessary information to candy manufacturers. Exhibit will be in charge of H. C. Burmister, Boston Division Manager.

Geo. H. Sweetnam, Boston, Mass. (No. 73.)

United Chemical & Organic Products Co., 4200 S Marshfield Avenue, Chicago, Ill. (No 70.) Exhibiting: "Ucopco" Wheel Dried Gelatine for the manufacture of confectionery. In attendance:

P. T. Storr, Manager of the Eastern Territory; Vincent Herman, Eastern representative, C. W. Butterworth, N. E. representative; Wm. Korf, Western representative, H. A. Voedisch, Sales Manager.

Universal Candy & Chocolate Machine Co., Springfield, Mass. (Nos. 18 and 19.)

Union Confectionery Machinery Co., Inc., 29 W. Houston Street, New York City. (No. 46.) In attendance: H. Greenberg, J. Greenberg and A. Greenberg.

United States Foil Company, Louisville, Ky. (No. 60.) Quoting from their letter of May 4th: "Our booth, which is No. 60, at the intersection of the two main aisles, will be known as 'The Idea Shop,' where the latest designs and innovations in sales-winning Master Metal wrappers and packages will be on display. We will have a staff of package experts in attendance to explain the various packages and wrappers, and to advise with candy manufacturers about the most effective containers for any new items they may be planning to introduce. In addition to the well-known lines of Master Metal wrappers and Master Metal cartons, there will also be shown UNIFOIL box tops and box wraps for transforming every-day packages into sellers for special occasions, Master Metal novelty boxes, and kindred products. H. G. Hanks, General Sales Manager, will be on hand to greet his many friends in the confectionery industry, together with C. B. Kniskern, Manager of the Container Division; F. A. Harwood, V. A. Gwyer and S. N. Williams."

Vacuum Candy Machinery Co., Waukegan, Ill. (Nos. 53 and 54.)

P. R. Warren Co., Everett, Mass. (No. 23.) Exhibiting: "X-RAY" Display containers, Duplex display containers, and other folding boxes. In attendance: H. Raymond Warren, Sales Manager and Vice-President, will be in charge.

John Werner & Sons, Rochester, New York. (No. 72). Exhibiting: A new machine that will intertest hard candy manufacturers. In attendance: Charles Werner, Theodore Werner, Arthur F. Miller, Sales Manager.

White-Stokes Co., Chicago, Ill. (No. 139.)

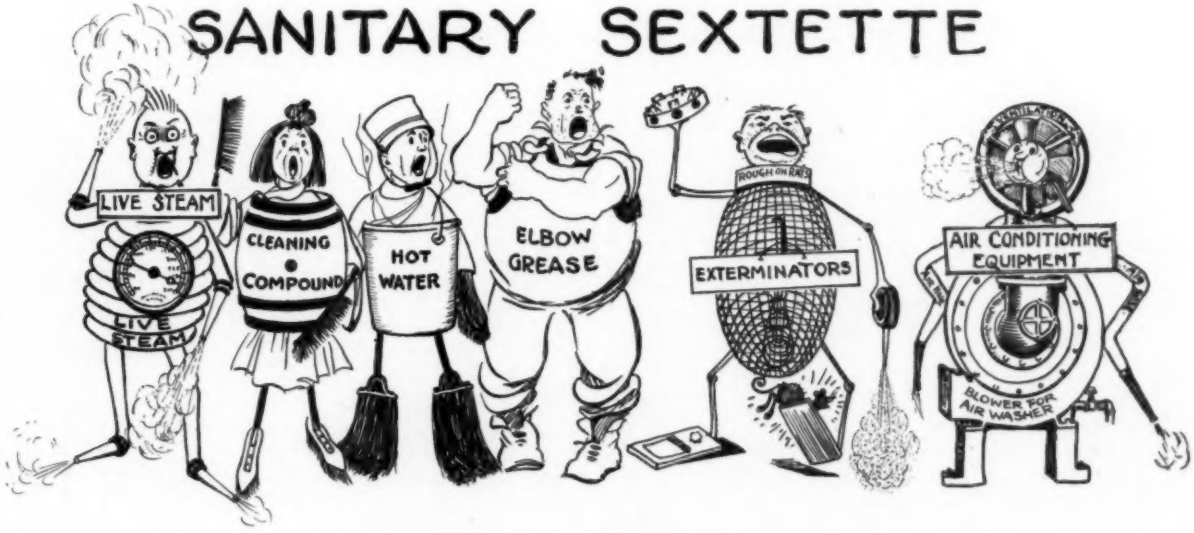
Whiting-Patterson Co., New York City. (No. 11.)

H. O. Wilbur & Sons Co., Philadelphia, Pa. (No. 145 and 146.)

R. J. Williams, Boston, Mass. Mfrs. Agent. (No. 25.)

Publications

Boyles Candy Publications, Chicago	No. 124
Candy and Soda Profits, St. Paul, Minn	No. 21
Confectioners Journal, Philadelphia	No. 129
Confectioners Review, Cincinnati	No. 49
International Confectioner, New York	No. 16
The Manufacturing Confectioner, Chicago	No. 78
Northwestern Confectioner, Milwaukee	No. 26
Sweets Publishing Co., Atlanta, Ga	No. 90
Western Confectioner, San Francisco	No. 10



—COMING—

An Article and Open Discussion on the Methods and Materials for Keeping a Confectionery Plant in Proper Condition of Cleanliness and Sanitation.

Also "The Care and Cleaning of Machinery and Equipment."

What Constitutes Purity in Candy

by Carey P. McCord, M. D. and W. E. Brown, M. D.
Industrial Health Conservancy Laboratories

The first of an extensive series of articles based on special investigations and research work in connection with our campaign for higher quality standards and preparatory to drafting a code of cleanliness and sanitation for the confectionery industry.—EDITOR.

AS one studies advertisements of food products he is impressed with the fact that everyone manufactures "Pure Products"! He is constantly greeted by such terms as "Purity Guaranteed," "Manufacturers of Pure Foods," "Purity Products Only," and many other similar expressions. Quite naturally the question comes to mind as to what really constitutes "Purity" in food products and what standards are applied in order to determine actual purity. Again one is led to wonder whether or not much of the so-called purity is not the "paper purity" used largely for advertising purposes and of little practical value to the consumer. Much is sold under purity labels, which would not stand very careful study or scrutiny. In order to inform ourselves regarding purity as a fact, and not simply as an advertising fancy, let us look at some of these questions and formulate in our minds what would be a fair definition of "Pure Food" as applied to the confectionery industry.

Purity in any food product concerns itself with

The materials used in manufacture,
The methods in which these materials are used,
The individuals who handle the material and equipment in the factory,
The jobbers and dealers who handle and display the product.

Certain definite standards have been formulated but it is only through the maintenance of these standards that one is truly licensed to apply the term "purity products." Each of these will be discussed very briefly and in turn. In this way it may be possible to indicate the minimum standards for purity in candy.

Materials

For purposes of this discussion let us take for granted that no materials which in themselves are "harmful or deleterious to health" as the statutes say, are used in the manufacture of confectionery. The Pure Food Laws cover this subject quite thoroughly and we believe the conscience of the food producing industries, as a whole, prompts a higher and broader standard than the letter of the law indicates.

Often, however, there are all too many loop holes in the laws. Hazards develop from the way these "approved" raw materials are handled. There is a woeful lack of laboratory control of materials in purchasing. This same lack of control is often evident throughout the entire process. For instance, nut meats which appear to the conscientious buyer to be perfectly all right, clean and free from animal matter, may contain eggs, which will within a few weeks develop into worms. These often appear after the candy has left the factory and is in the hands of the retailer or the consumer. Although the detection of these eggs is a difficult task, yet by employing proper methods, it can be accomplished. Other raw materials are subject to similar hazards. Therefore, it is all essential that the materials entering into the manufacture of candy should be clean and pure not only as far as the naked eye can detect, but also microscopically clean. Adequate inspection and analysis should be made of all materials before they are used.

"Purity" Is Not Always Quality

Too frequently, manufacturers comply in detail with the pure food laws and yet place upon the market a grade of goods, which cannot be technically impeached but in which quality has been sacrificed. For example, a chocolate cream drop may contain the customary sugar and corn syrup (both of excellent quality) but in addition a considerable amount of raw starch. This product both complies with the pure food laws, and is a perfectly innocuous food, but it does not have the eating quality, which is so essential to good candy. Its sales and consumption does no physical harm to the consumer, but it does have a very detrimental affect on the industry as a whole. To say the least, goods of such quality do not stimulate the desire for more. Indeed, they may be the factor in turning a person, who is fond of candy, to other fields for satisfaction. Some manufacturers in other industries have gone so far as to print on their labels the exact analyses of their products. When honestly done, this does away with any ambiguity in fact or inference as to the chemical quality of the product.

There has been, and still is, a general misunderstanding on the part of the public regarding the legitimate use of certain ingredients such as "glucose" and coloring matters. So far has this gone that many individuals regard these materials as poisonous or deleterious to health. This is most unfortunate, because corn syrup is one of the purest foods and is of definite value as a food material. It might be well to rid the public of its erroneous conception by dropping the term "glucose" and using the term "*Corn Syrup.*" These facts hold true in part for coloring matters used in candy manufacturing. The public has an inherited fear of "analine dyes" or "coal tar" colors. Such coloring matter used in the proper amount are certified by the United States Department of Agriculture, and offers no harm to the consumer. It would be much better to refer to them as "*Certified Colors*" and thus do away with a popular prejudice. Furthermore, these "certified colors" should be purchased from reliable concerns, who stand back of purity of their product.

Vegetable fats are now used very generally in the manufacture of candy. The shortage of animal fats during the war taught us a valuable lesson in the utilization of vegetable facts in our foods. They supply very valuable nutrition and may be used within reason without detracting from the quality of the products.

Vegetable and animal fats have their place, as all candy men know, and in some products are much to be preferred. However, these facts should be of such quality and used in such proportions as to contribute an eatable quality to the candy. They should not be used in such a way as to make the consumer feel that an inferior substitute has been employed. A successful effort may be made to promote "the shelf life" of candy by using fats of higher melting points, but if these offend the esthetic sense of the consumer, not only has a customer for the particular article been lost, but the industry as a whole suffers. So we might go on enumerating various materials, such as synthetic flavorings, certain acids, gelatins, and milk powders, etc. Where produced by clean, wholesome methods, from materials of good quality, no one can rightfully question their purity and adaptability in the manufacture of food products. It is only when cheaper substitute materials are made into an apparently first-class product, that the consumer has the right to question the term "pure" on the label of goods.

Methods

Often the manufacturer does himself proud on the matter of the selection of truly "pure" materials only to fall down when it comes to the question of handling these materials in manufacture. From the time that the material reaches the plant until it is encased in its final package and ready for the consumer, it should have constant protection. Unless this is done the term "Pure Food Products" becomes a misnomer.

Fats that have been allowed to become a little rancid, fondant that has acquired a certain amount of gross dirt from standing around unprotected, or from being in a partially cleaned receptacle, chocolate coatings that have been spilled and cleaned up off the floor and put back into the melting pans or kettles, nut meats that have been improperly stored and consequently are inhabited, finished goods which are unnecessarily handled, machinery and utensils that are not properly cleaned and sterilized, do not contribute to a pure product. Clean methods and clean equipment are essential to "Pure Candy" just as much as are clean and wholesome materials.

Employees

Does the employee play an important part in the production of the so-called "pure food"? Does not the matter rest largely with the employer? If the employee is unhealthy and careless in his habits he may be the cause of infecting the candy and changing its status immediately. On the other hand, if the employee is given the opportunity to become a healthy worker, and to work under healthful conditions, with instructions and facilities for proper hygiene, he will be able to do his part in safeguarding the purity of the food product. He will be able to truthfully say that so far as he is concerned the guarantee of a "Pure Product" will stand.

Recently a worker in a very clean plant was decorating a chocolate Easter Egg. The material used was above reproach, and the worker was putting on a clever design in white sugar work. Every few minutes the cream hardened in his decorating tube and each time he would put the tip of it in his mouth to soften it. That worker was, by his unsanitary act, changing a pure product into a contaminated one.

Distribution—A Factor in Purity

Another important aspect of the matter of purity has to do with the jobber and the retailer of candy.

A piece of candy may be "pure" in every sense of the word when it leaves the factory, but all these precautions on the part of the manufacturer in safeguarding the quality may be put to naught by the careless, indifferent attitude of the jobber or dealer in handling and displaying the stock.

Often candy is stored in damp, foul-smelling places, and thus marked deterioration of quality results. Again it may be exposed to the elements in window displays, or to the dust and dirt of the street by failure to use adequate means of protection. Only recently an article

(*Continued on page* 38)

The Development and Prevention of "Bloom" on Chocolate and Chocolate Work

Digest of a paper read before the Society of Chemical Industry of London, England.

by R. Wymper and A. Bradley

CHOCOLATE is an extremely delicate product which loses its pristine beauty in the course of its travels to the consumer. When it leaves the manufacturer, chocolate, prepared by well-established methods, appears as a smooth, glossy, rich red-brown product. After it has been kept in the shop, under trying conditions of exposure in the window or stocked in a damp atmosphere subjected to extreme fluctuations of temperature, chocolate may appear as a dull pale-brown mass, mottled and patchy pieces, sticky or moldy lumps, or in the condition well described as "bloomy," implying that a bloom similar to that appearing on grapes, powders the surface of the chocolate, or at its worst producing a rough, dull surface that renders the goods unsightly. There are two forms of bloom, sugar-bloom and fat-bloom.

Sugar-Bloom

Sugar-bloom appears commonly under the following conditions:

1.—After exposure to damp atmosphere and great changes in temperature such as occur in gas-lighted shop windows in winter.

2.—When a low percentage of fat is present in a coating under conditions indicated above.

3.—When the sugar is in a finely divided state and the percentage of fat is below a certain figure. The finer the sugar and the lower the fat content, the greater is the danger of sugar-bloom.

4.—When the contained fat is of low melting-point, or when the coating exists for any length of time in a molten state while enclosing centers that have a fair percentage of water.

Experiments show that chocolate containing less than 34 per cent cacao fat is likely to develop sugar-bloom. Cause 4 applies especially to goods which are subjected to warm weather or tropical conditions. The figures given by the authors show that sugar-bloom can be largely prevented by using a high percentage of cacao butter for coatings for use in temperate climates and that the addition of a fat of high melting point to replace cacao fat is advantageous for preventing sugar-bloom in goods to be subjected to very warm weather.

Fat-Bloom

Fat-bloom is a much more complicated condition than sugar-bloom and its true cause (at least in the powdery form) being due to the excreting or exudation of minute crystals of fat was first recognized by one of the authors. The most acute form of fat-bloom is that appearing on chocolate by too slow cooling, when the higher melting fractions of the fat crystallize out as nodules giving a rough appearance to the surface of the chocolate. The authors had previously worked on a similar bloom occurring on biscuits and were able to overcome it largely by using large proportions of oils and fats of such low melting point that crystallization or separation of fat crystals became impossible in the normal temperature range.

The authors carefully examined cacao and cacao butter from Ceylon, Trinidad, West Africa and Venezuela and found the first to produce a cacao butter with the smallest percentage of hard, high melting constituents. Cacao butter is a mixture or solution of several fats which are present in different proportions in fats of different origin. Thus West African cacao butter contained 43.8 per cent of fat with a melting point of 46° C., while it contained 46.6 per cent of material melting at 31° C. (and the rest melting at intermediate temperatures), while the Ceylon product had only 30.7 per cent melting at 44° C. and 50.8 per cent melting at 31° C., so that on the whole the Ceylon cacao

butter contained fractions melting at lower temperatures and less likely to produce bloom.

This was tested by making up from each kind of cacao and its corresponding fat ten different batches of chocolate coated confections and cooling at different rates. The products were then kept for 14 days at a temperature of 25° C. (77° F.) and examining for bloom. The West African showed distinct bloom, the Ceylon showed none and the Trinidad and Venezuelan cacao products showed slight bloom. *The belief of most chocolate makers that all cacao butters are for practical purposes identical is thus shown to be unfounded and that differences do occur which can be used to advantage by the manufacturer.*

A study of the nature of the melting point of cacao fat (which is a complex mixture in itself) and also of mixtures of cacao fat and illipé fat brought out certain facts as to crystallization of the higher melting constituents of the fat which are the prime cause of fat-bloom, resulting in certain recommendations which are embodied in the conclusions given in brief form below.

Conclusions

1.—Fat-bloom is the direct result of the separation and further crystallization, after manufacture, of the high-melting fractions of cacao butter and other fats added to chocolate and will occur at temperatures varying with the capability of these higher fractions of separating at the temperatures to which the chocolate is exposed.

2.—Owing to the low melting point of chocolate and the necessity for working in practice with thin mixtures, it is not commercially possible at present to prevent entirely the formation of fat-bloom, but attention given to details of preparation and manipulation, with a view to secure maximum separation and crystallization of the high-melting fractions of the fat before the goods are packed, greatly reduces this type of deterioration. Agitation and vibration during molding assist in securing a high point of complete fusion, and a previous seeding with well separated chocolate or cacao butter will further hasten the process as exemplified by the comparative freedom from bloom of hand-covered chocolates.

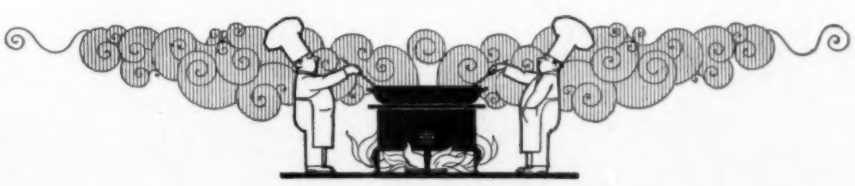
3.—The removal of the fractions, liquid at ordinary temperatures, from cacao butter by fractional crystallization and pressure ensures more nearly "straight line" melting points, little subject to alteration with age of the higher melting fractions, which, therefore, if used alone in the manufacture of chocolate would guarantee the chocolate against bloom at our temperatures for considerable periods of time. However, the technical difficulties make such a procedure impossible at present.

4.—By hydrogenating the low melting fractions of cacao butter a fat is obtained of desirable properties for mixing with normal cacao butter. The extent of hydrogenation desirable is small and on mixing with normal cacao butter to the extent industrially practicable, a considerable diminution in the tendency to bloom is observed.

5.—The temperature at which complete melting of cacao fat occurs can be raised about 5° C. (9° F.) by allowing the high melting fractions to separate at 35° C.

6.—From the above (5) it follows that in practice chocolate can be prevented from blooming only for given temperature conditions, and that unless the fractions of highest melting point have been allowed to separate completely (without removing them, of course!) blooming may subsequently occur at any temperature up to the complete melting point of the highest fraction capable of separating.

7.—Conching, or heating and stirring for prolonged periods at the highest temperature at which any of the highest melting fractions can separate out, and a slow reduction of that temperature with constant agitation before the chocolate is used for covering seems the only likely way of preventing bloom, and practical experiments have confirmed this contention. Thus if the melting point of the highest melting fraction of cacao butter is assumed to be 39° C. (102° F.) and separation is taken to begin at 36° C. (97° F.), prolonged conching or agitation at 36° C. should be employed, and the chocolate should be very slowly cooled to the temperature of molding or covering with constant agitation. After covering, the chocolate goods must be cooled very slowly and in this manner the tendency to bloom will be greatly diminished.



The Effect of Atmospheric Exposure on Soft Candy

by S. Henry Ayres and H. A. Barnby
From the Research Laboratory, Glass Container Association

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IT has come to be recognized among the large candy and confectionery manufacturers that their products undergo appreciable changes on partial or complete exposure to the air, that products, such as candy—otherwise of excellent quality and appearance, when subjected to atmospheric influences may be so altered as to become decidedly inferior as an article of merchandise.

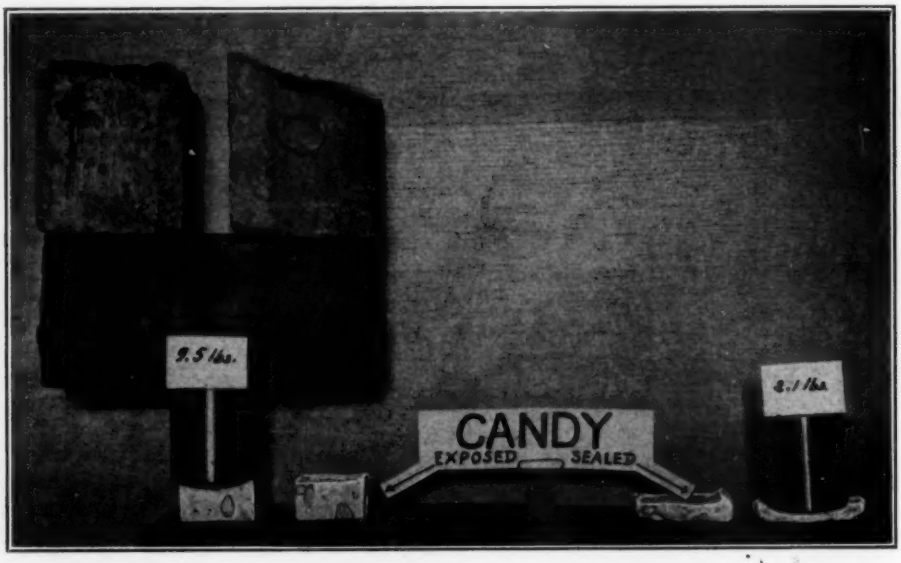


FIG. NO. 1—BONBONS Both samples on left have been subjected to 9.5 lbs. Note "graining" in surface of exposed sample

Rector[1] refers to this condition as "atmospheric spoilage," and goes on to define the phenomena as "spoilage directly or indirectly due to the chemical or physical action of the atmosphere."

Atmospheric Spoilage Includes—

This refers to all variation in the product from the time of manufacture to that of consumption and may include (1) loss of moisture with its consequential hardening and waste due to chipping, (2) graining on the surface due often to the crystallization of sugar or to the exudation of certain constituents from within caused by evaporation at the surface, (3) development of rancidity in the case of some candies containing nuts or edible oils, when exposed to oxygen of the air, (4) loss of volatile flavoring oils and essences by evaporation and (5) taking up of moisture from damp air, with some candies, producing a sticky, dull surface.

By far the most troublesome of these difficulties and the one which almost invariably takes place in soft candies which are not packed so as to exclude atmospheric changes, is that of moisture loss with hardening. (By soft candies is meant those which are distinctly out of the brittle class.) In this connection it is rather striking to note how great a change takes place in the physical state of some of the candies by a relatively small amount of evaporation. Take two of the types examined in this laboratory, for example, nut nougat and cocoanut bonbons:

Test Using Nougat and Cocoanut Bon Bons

A popular brand of these two candies was purchased fresh from the market in the usual one-pound cardboard package. The nougat pieces came wrapped individually in heavily parafined paper. Samples of both bonbons and nougat were put in jars without lids and stored at 70 degrees F. and a relative humidity varying from 48 to 85, depending on atmospheric conditions. In like manner, samples were packed in glass jars with airtight seals and stored at the same temperature. At the time of storage the nougat was quite plastic and the cocoanut bonbons crumbled readily.

Two examinations were made of the exposed samples during the storage period; one after four and a half months and the other after seven and a half months. (The humidity was lowest during the last half of the storage period.) The per cent loss in weight due to evaporation was as follows:

	4½ Months	7½ Months
Nougat	1.6%	1.6%
Bonbons	3.9%	4.7%

These figures indicate that the most rapid evapora-

tion (even with the higher humidity) takes place at the beginning of storage.

At first thought and without additional information this data would seem to represent too slight a change in weight to warrant more than passing comment. But, bearing this fact in mind, let us go a step further with these exposed samples and compare them with the ones sealed in jars:

First, as to relative hardness, no amount of discussion could convey to the mind of the reader what the accompanying cuts disclose.

In the case of the exposed bonbons (Fig. No. 1) the mass of 9½ lb. is resting on an area of not over .03 sq. in. so that the actual compression force is approximately 320 lb. per sq. in. While this is *not* an average value at all, it indicates how very resistant the sample was to fracture and shows further that even slight moisture losses may occasion very marked changes in physical state. It should be borne in mind that this hardness began to develop quite early in the period of storage.

Also, the graining effect referred to above is quite noticeable on the surface of the exposed bonbons in contrast to that of the sealed samples. In the latter there was no evidence of flavor change during storage. This cannot be said, however, of the exposed ones, for these all possessed, in varying degree, the characteristic stale taste of old dry candy. A portion of this is due, more than likely, to some loss in flavoring oils with exposure.

Fig. No. 1 shows by way of comparison, the ease with which the sealed sample was crumbled after the seven and one-half months of storage. Only an interval of a few moments was required, after placing on the two pound weight, to produce the crushing effect illustrated, for the sample was moist, soft and palatable in every particular. Its appearance, also, was unchanged during storage.

Summary

The nougat showed similar results. The sealed samples (Fig. No. 2 right) retained all their original properties of plasticity, appearance, flavor of nuts or essences and palatability in toto. Had it not been for the pieces of nuts in the sample, the distortion produced by the 2.1 lb. weight would have been even more striking. The time required for the distortion shown in both figures was approximately one minute for the sealed samples whereas the exposed samples easily withstood the heavier load several times as long with no evidence of alteration in shape.

The object of this paper then is to call attention to the fact that the type of container in which soft candy is packed has a marked influence on the commercial life of the product. No attempt has been made to study all the types of soft candy. While experiments have been conducted on several different kinds of candy, two types only are chosen for discussion. These serve well to demonstrate to the confectioner and candy manufacturer the importance of providing the proper sort of container for his goods. He is in turn left to work out to best advantage his own specific problems such as (1) varying the placing of pieces in the jar according to size, shape and consistency of the product, (2) shape of container best suited to his needs, (3) style of seal used, etc. The essential thing to note is that soft candy, when exposed or when packed in the customary cardboard box is subject to all the deteriorating influences of the atmosphere and in a relatively short time becomes a sad commentary on the manufacturer's quality standards.

By way of conclusion it may be said that soft candies, when exposed to atmospheric changes either directly or when wrapped in paraffined paper, deteriorate in quality at a surprising rate. There is loss of moisture and flavoring materials (most rapid at the start of storage) with resultant hardening. The surface may become grainy due to the crystallization of the sugar resulting from evaporation. Or shriveling or wrinkling may occur, thereby destroying the lustrous surface and marketability of the product. Candies con-

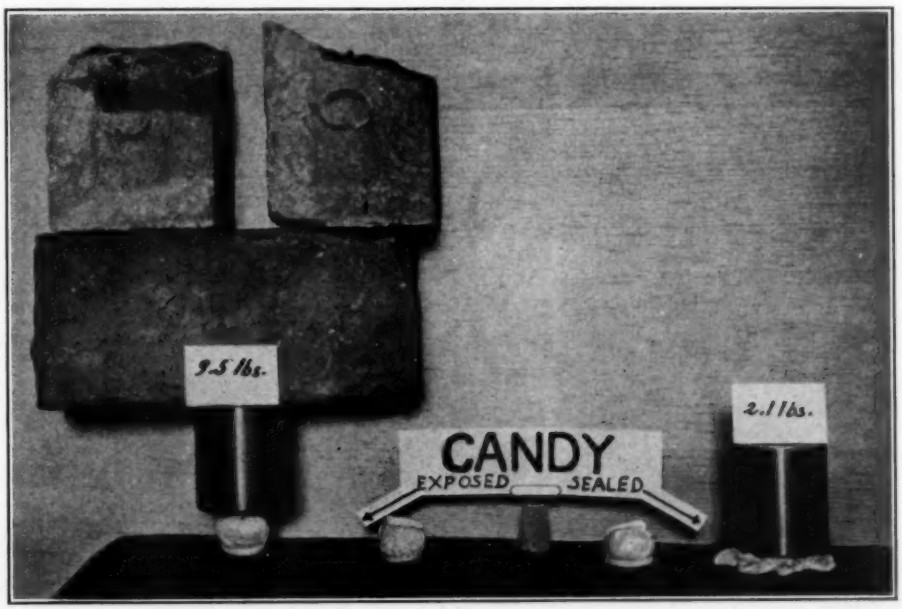


FIG. NO. 2—NOUGATS Both samples on left have been subjected to 9.5 lbs. and those on right to 2.1 lbs.

NEWS DIGEST

C. L. Danforth joins the Frank E. Block Company, Atlanta, Georgia, as sales manager. Mr. Danforth was formerly connected in sales capacities for the Certainteed Products Company as well as special agent for the Travelers' Insurance Company. He will direct sales for the package candies, while C. C. Willis, sales manager for the Block crackers will be in charge of all branch houses and the large force of salesmen.

The Mountain States Martha Washington Candies, Seattle, Washington, have leased retail space at 1516 Second Ave. S. S. Greenwell will manage the Seattle factory and store.

Ray L. Skofield was recently elected President of the Sweets Company of America. He succeeds Louis W. Levy. Lewis L. Clarke continues as chairman of the Board.

Central Candy Company, Waco, Texas, is the new organization that has taken over the candy department of the Shear Company. It is capitalized at $40,000. The incorporators are P. S. Pappas, B. C. Cantrell, and E. E. Logan. P. S. Pappas is manager of the new company.

William H. Luden, Reading, Pa., has offered a bonus to each of his employees who will keep their children in school after they reach the age of fourteen years instead of putting them to work. Mr. Luden believes that most children leave school because the parents need the earnings, and this bonus will enable the child to have the opportunity of a high school education.

Emil Boldemann, President of the Boldemann Candy Company, San Francisco, California, has purchased the Harry Hoefler Candy Company and this organization is to be called Mary Dry, Inc. Mr. Boldemann has been acting as one of the trustees for the business since 1923. The same line of candies will be manufactured under the new management except that they will use the new name, "Mary Dry Candies." Frank Callebotta remains in charge of the factory.

The Standard Candy Co., Chicago, Illinois, have moved from 411 N. Wells St. to 3439 Pierce Avenue.

William C. Johnson Candy Co., Cincinnati, will move into new quarters. Coming close on the heels of the new grocery and produce building soon to be built on Depot Street, in the West End, Price Hill Viaduct District, by The Kroger Grocery and Baking Co., comes the announcement of the acquisition by The William C. Johnson Candy Co. of the three-story brick building on the southwest corner of South and Depot Streets, on a lot 173x90 feet, containing approximately 38,000 square feet of floor space, which will be almost double the amount of floor space in their present location at 216-220 East Ninth Street, between Main and Sycamore Streets.

From a modest beginning in August, 1912, The Wm. C. Johnson Candy Company has shown a solid and steady growth, which may be largely attributed to their manufacturing policy of "Every Ounce Pure" candy ingredients, using only carefully selected materials of the better grades, and making only the better grades of bulk and package chocolates.

The candy company will move into their new location about July 15th, 1925, after extensive improvements and alterations have been completed, which will bring the cost of the structure with the cost of factory betterments to an amount in excess of $50,000. The candy company's manufacturing capacity will be greatly increased in their new plant, which will give employment to a larger number of workers.

Capital of the company has also been substantially increased.

Officers of the Wm. C. Johnson Candy Company are Wm. C. Johnson, president; Ben E. Kroeger, treasurer, and Albert Hirschler, secretary.

A. D. Fisher of A. D. Fisher Mfg. Co., Toronto, inventor and manufacturer of the chocolate tubing machine and the product chocolate tubing, is planning to attend the N. C. A. Convention and make arrangements for manufacturing and marketing his product in the states. Any message for Mr. Fisher during his visit at the convention will reach him if directed to him in care of The Manufacturing Confectioner, Booth 78, Mechanics Hall.

Robert M. Dederich, business manager of the Cincinnati Candy Association, has brought himself into the limelight through his success in organizing Cincinnati into one of the best candy markets in the United States. His efforts have been so marked that he has recently been offered a very flattering position on the staff of one of Cincinnati's most prominent newspapers at a salary which was so attractive that in justice to himself he could not afford to refuse it.

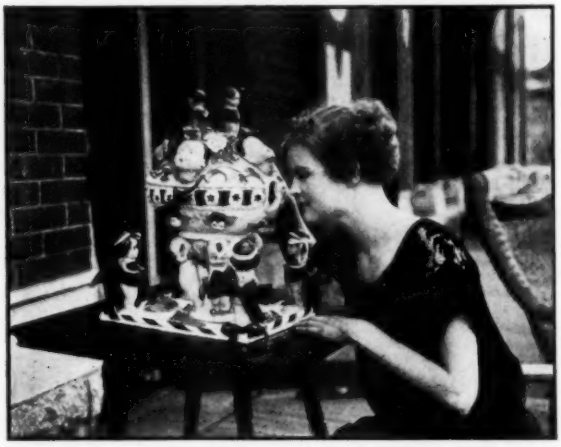
Mr. Dederich has tendered his resignation to the Cincinnati Candy Association to take effect as soon as his successor has been picked and thoroughly familiarized with the work of the association. The Executive Committee of the Association has under consideration several outstanding candidates to succeed Mr. Dederich, but will take their time in making a selection to be sure of securing a man who will carry on the good work so ably instituted by Mr. Dederich.

Mr. Dederich leaves with the grateful appreciation of everyone connected with the industry in Cincinnati and best wishes for his success follow him in his new field.

The Angelica Jacket Company of St. Louis, well known manufacturers of aprons, jackets and sanitary apparel, have leased additional manufacturing space, and will soon occupy the entire fourth and fifth floors of the building at 1419 Olive street, together with the ground floor at that address. The company will occupy with the added space 40,000 square feet under one roof. This is the second time within the past year and a half that the Angelica Company has taken on additional space.

The Midland News will be discontinued as a regular bulletin and will only be issued for special occasions. This was the decision at a recent meeting of the Board of Directors of the Midland Confectioners Association. Letters will be sent out to the members frequently with special items of interest.

The J. W. Greer Company will have a substantial addition to their engineering force after June 16th, when Fred W., son of J. W. Greer, who graduates from Massachusetts Institute of Technology, will immediately begin work. Fred W. has been quite active in undergraduate activities and has won quite a reputation as a wrestler at "Boston Tech," having been captain of the team for the past two years, and we predict that his wrestling with the machinery business will prove equally successful.



This Easter egg was presented to Governor "Ma" Ferguson of Texas by Mr. George Sene, a San Antonio candy maker, a creation of his own hands. A close examination will show its delicate and intricate craftsmanship. The Easter egg is larger than a football and at one end has a door which opens, the interior is decorated to represent the tomb of Christ with His body and cross in place. His Mother, Mary, and the disciples are also shown looking into the tomb.

Mr. Sene has been engaged in candy making since he was 12 years old and is now 44. This Easter egg which he admits is one of his best works is considered one of the finest examples of confectionery that has ever been seen in this city.

Minnesota Vegetable Color Law Repealed

The Minnesota Food Law requiring the use of vegetable colors in candy and other food products has been repealed. It is, therefore, now permissible to ship into that state candy colored with certified coal tar colors, such as are approved for use in food products by the United States Department of Agriculture.

The law as amended specifically permits the use of such colors in candy and still or carbonated beverages, and in such other food products as may be permitted and authorized under rules and regulations issued by the Dairy and Food Commissioner.

We feel very much gratified that this victory has been won after years of hard work on the part of this association and others who have rendered invaluable assistance.

We are greatly indebted to the splendid co-operation and valuable assistance that we have received since the Minnesota Legislature convened in January, when the bill which is now a law was introduced, from our Minnesota members, especially those who were members of the Joint Legislative Committee of the Food Industries of Minnesota which was organized for that specific purpose, and which deserves a major portion of the credit for the final enactment of the law.

Valuable assistance was also rendered by the National Manufacturers of Soda Water Flavors and the Flavoring Extract Manufacturers' Association.

We feel that special mention is due to the publishers of the Candy and Soda Profits Magazine, who compiled valuable data used by the committee, and who splendidly co-operated with the committee in bringing about the passage of the bill.

Minnesota has at last placed her stamp of approval on the use of certified coal tar colors in food products, in uniformity with the Federal law and the food laws of all the other states.

This is a striking evidence of what can be accomplished through organized effort and unselfish co-operation.

Two years ago when the vegetable color law in North Dakota was repealed, the Food Commissioner of that state issued a ruling specifically prohibiting the use of certified coal tar colors in candy.

We were advised that his reason for issuing this ruling was that inasmuch as the Minnesota law prohibited the use of certified coal tar colors in candy and other food products, it was his opinion that it would be for the best interests of both states if they were uniform as to color requirements.

Now that the Minnesota law specifically authorizes the use of certified coal tar colors in candy, we will confer with the Food Commissioner of North Dakota and request him to rescind this ruling and we believe that he will do so and thus bring about uniformity in the use of certified coal tar colors throughout the United States.

WALTER C. HUGHES,
Secretary.

(From N. C. A. Bulletin.)

Factory Site and Building Available. Owing to the short summer season a hotel in the New England States is available for manufacturing purposes. There is a three-story building 30 x 60, two large porches that could be made into extra rooms and two smaller buildings. This is an excellent location as there are several large cities within a radius of fifty miles. The present owner would like to rent this property on a long time lease. For further details address Editor, THE MANUFACTURING CONFECTIONER.

H. O. Wilbur, founder of one of the well known chocolate manufacturing concerns in Philadelphia, passed away May 9th at the age of 90. Mr. Wilbur had a very interesting career. He entered the chocolate business in Philadelphia in 1870, and at that time became associated with Samuel Croft.

The Croft, Wilbur & Co. was then founded and continued until 1884. At that time Mr. Wilbur and his two sons took the chocolate manufacturing end of the business and Mr. Croft the candy manufacturing business. The present H. O. Wilbur Company was organized in 1909 as a corporation and moved to the building they now occupy.

Mr. Wilbur took a very active interest in the affairs of the community in which he lived, as well as the chocolate industry.

The Retail Confectioners' Association of Philadelphia, Inc., are going to publish a monthly bulletin containing meeting notices, items of interest, etc., for free distribution to the members. It will be an eight page affair, size 9½ x 6¼. Three hundred copies of each issue will be printed and mailed. The editor is C. W. Nordland, 6125 Race street; business manager and treasurer, Mr. C. Rieher; associate editors, Mr. C. H. Nuss and Mr. W. S. Huntington. The name of *Sweet-Meets* has been chosen for the bulletin and the association hopes to swell the membership through it. For Mother's Day they ran newspaper advertising and broadcasted two radio talks. A live association!

The Truth About Spoehr's Inc.

LAST month the Chicago *Tribune* made the announcement that a bankruptcy petition was filed against the Conrad Spoehr Corporation. This statement is incorrect and misleading, first because the bankruptcy proceedings were filed against "Spoehrs Inc." from which Conrad Spoehr retired eight months ago when a creditor's committee took over the management and believed they could continue to operate the four Spoehr's stores more successfully by closing the manufacturing department and buying all their candy in the open market. This policy soon proved to be suicidal to the business (their Christmas business we understand was 85 per cent less than when Mr. Spoehr had control of the stores) and the property will no doubt be liquidated. In view of these circumstances which had a tendency to reflect unjustly on Mr. Spoehr a brief history of his business will contribute, we believe, to a better understanding of the situation.

Conrad Spoehr founded Spoehr's Inc. in the spring of 1913. He started with one store on State street and a small factory. The capitalization of the company at the time was $10.000. The second year the capitalization was increased to $25,000 and the second store was opened on Adams street. In 1917 the capitalization was increased to $100,000 and at that time the Dearborn street store was opened. In 1919 the capitalization was increased to $250,000 at which time Mr. Spoehr feeling the need for more working capital to take care of this business, which was growing by leaps and bounds, secured the services of a small firm of investment bankers.

Unfortunately these bankers did not live up to their contract and defaulted on the sale of the entire amount of stock. Just at this time Spoehr's opened the new beautiful Michigan avenue store and one of the most modern retail candy factories in the country. The shortage of funds due to the failure of the finance company to provide adequate funds so reduced the working capital that in the fall of 1920 when the sugar crisis came, together with the deflation in other raw materials, Spoehr's were seriously embarrassed for lack of working finances.

Mr. Spoehr at that time was advised that the best way out of the dilemma was to go into the hands of a receiver, but in order to protect the good will and good name of the business it was deemed best to cooperate with a creditors' committee.

There were represented on this creditors' committee practically one man from each branch of trade with whom Spoehr's were doing business and the company attempted to function this way for about four years; about a year ago a very serious divergence of opinion as to the proper conduct of the business became manifest and certain elements sought to secure control of the business.

Finally in July, 1924, Mr. Spoehr closed out his interest to the parties opposing his policies and thereby severed all connections with "Spoehrs Inc." and the Spoehr retail stores which have only recently gone into bankruptcy.

Since Mr. Spoehr's retirement from the Spoehr Company he has founded Fudgebutter, Inc., a firm which devotes its entire energies to the manufacture of a chocolate fudge sauce. This is a new article and purports to be the only fudge sauce of its kind on the market. As it is self-preserving (containing no preservatives whatever) it should have a ready sale in all states and from our observation of the orders leaving his factory, there appears to be a very considerable demand for this article, which is packed in small attractive containers selling to the consumer at 10 and 25 cents each.

We predict that Mr. Spoehr will yet capitalize on his long experience in the candy industry and that he will again harness his energy and optimism and "come back" into his own all the richer for these seemingly unfortunate experiences which oftentimes prove to be a blessing in disguise.

The Manufacturing Confectioner's TROUBLE CHART

Compiled by Adrian LeRoy

V. Pan Work

Spotty Pan Work—Its Causes.
Not allowing charges to dry sufficient before re-wetting. One or more of the charges not sufficiently dry has come to the surface. If the goods should spot a day or so after the goods were made the trouble can be traced to one of the last charges. But should the goods take a week to spot then one of the first charges was defective.

Goods Cracking After a Few Days Old.
Putting hot syrup on cold centers.
Centers too warm when first charges went on.
Pan too hot.

Lumps in Bottom of Pan.
Using too much "dusting."
Using "dusting" too late.
Charges too big.
Not spreading charges evenly over goods.

Unable to Get Smooth Finish on Jelly Beans.
Density of syrup not right.
Not thinning down last charges.
Panning with the same density of syrup from start to finish.

Unable to Get Smooth Finish on Hard Panning, Such as Sugared Almonds, Etc.
Not thinning down last charges.
Pan too warm.
(The secret of smooth finish on pan work is that the last charge must be thinned down and also that both the pan and the centers must be cold when the last charge goes on.)

Goods Splitting or Cracking While Panning.
Expansion of centers caused by pan being too hot.
Charges too hot on cold centers.
(In the case of almonds cracking while panning leave almonds in drying room 105 degrees F. for two days, then leave them exposed for two days in the open.)

Unable to Fill "Pit" Holes While Panning.
Syrup too thick.
Not dusting enough.
Dusting too late.
(Give goods a full charge of syrup and allow the pan to run until the goods are almost dry on the surface. The syrup by this time will have penetrated the crevices and will be still quite damp. Now, dust with a little fine powdered sugar. Repeat this process if necessary.)

Lumps of Chocolate in the Pan (Chocolate Pan Work.)
Chocolate too cold.
Air blast too cold.
Chocolate too thick.

Unable to Remove Scratches from Finished Goods on Chocolate Pan Work.
Chocolate too thick.
(Also try a little Gum Benzoin dissolved in alcohol mixed in the cocoa butter.) The last charge must be just a thin wash of chocolate to get a good finish on chocolate panning. Some operators use chocolate syrup (glucose, syrup and cocoa powder) to finish off chocolate panning.

White Pan Goods Have a "Bad Color."
Pan too hot.
Charges too hot.
Sugar at fault.
(Try a little blue or Albumen in the syrup.)

Soft Centers Lose Their Shape While Panning.
Revolutions of pan too fast.
Pan too warm.
Syrup not cold enough.
Centers too soft.
Badly made centers.

Finished Goods Have Minute Cracks that Contain Starch—Goods Look Streaky Caused by Floury Cracks.
Not giving the goods a charge of thin syrup before polishing.
(Sometimes the thin polishing oil that is now widely used will remove these "floury" cracks as well as polish.)

Hard Panning Has Rough Surface.
Not finishing in cold pan with thin charges.

Goods Have Poor Polish.
Goods not "turning" in pan (only "sliding").
Not left long enough in polishing pan.
Pan wants re-waxing.
Not sufficient polishing oil.

Centers Cling Together in Pan When Panning with Silver Leaf.
Centers too damp.
Not dissolving gelatine in acetic acid for the moisting solution.
Not using Albumen also as a moisting syrup.

No Polish on Silver Pan Work.
Damp silver.
Inferior silver.
Insufficient time in polishing.
Not burnished sufficiently.

Centers Break (Liquors or Cordial Pan Work)
Bad crystallizing on centers.
Not dusting with fine powdered gum arabic.
Pan revolving too quickly.
Warm pan.
Badly made cordial centers.

Fundamental Steps of a Pure Food Foundation — for the Confectionery Industry

Pure candy begins with a clean conscience—an instinctive desire to produce and handle confectionery under the most wholesome, healthful working conditions.

A survey of sanitary conditions, policies and methods is being made as a basis for drafting a code and manual of cleanliness, sanitation and hygiene for the manufacture and handling of candy. Such a manual will contain suggested standards and methods for the guidance of superintendents in maintaining proper factory conditions. The co-operation of our readers is especially desired.—Editor. ....

Speaking of Cleanliness in a Candy Plant

Some gleanings from the experience and convictions of an old "sugar head"

by Clifford Clay

Mr. Clay is well known to many of our readers especially in the east, he is at present in England where he has been engaged the past ten months on special work for some of the leading British Manufacturing Confectioners. Mr. Clay is preparing some very interesting practical articles which will appear in The Manufacturing Confectioner later in the year when Mr. Clay returns to America—Editor.

PROBABLY the most difficult thing to defend, acclaim and sponsor is the perfectly obvious. When we were children the necessity of clean hands and a clean neck was shrouded in mystery. Why go through the misery and trouble of washing repeatedly, particularly the ears, only to get dirty and have to wash again? Many people grow to man's estate and still question the practicability of cleanliness and seeing no valid reason, save themselves the trouble of cleaning up. Fortunately this attitude on the part of those engaged in industry (especially food industries) is becoming less evident each year. The confectionery industry has made progress along these lines, but we all must admit there is a need for standardization of methods and policies which affect the proper sanitary conditions of confectionery plants if we are to elevate our entire industry to its rightful place in the "industrial aristocracy."

The desirability of a clean factory is a point which is not argued or even questioned by those having a reputable manufacturing instinct and a "sanitary conscience." The methods by which a plant is cleaned and kept clean and sanitary, however, represent some problems which should be thrashed out.

The best answer to the question of "How to keep a plant clean?" is that advanced by Mr. Dale G. Steeley of Schrafft's: "Don't let it get dirty!" To assure this constant condition of cleanliness and order it is of first importance to drill all new employes into habits of order. People are very much like sheep in many ways and are very reluctant about doing anything which will be different from what is done by those about them. A new employe looks about at an immaculate floor and watches to see if any one throws anything on it. The factory worker

who will allow himself to become conspicuous by his dirtiness and be content to work at a dirty or disorderly station, contrary to the accepted practice of the other workers in the factory, are few and far between. If there are proper places for everything of value and containers conveniently placed for waste, it will take little insistence to teach the employes to use them.

There are, of course, certain very decided advantages in a clean, orderly factory and many undesirable and costly disadvantages in a slovenly, dirty one. There are some plants which stand out as shining examples and probably many whose lights have remained hidden under a bushel. It is through respect to the latter that the former are not mentioned by name. It is a striking fact, however, that the cleanest are without exception the most prosperous.

A Model Wrapping Machine Department

One company which manufactures a line of confections with a national distribution is equipped with a remarkably fine battery of perfectly operating automatic wrapping machines. The condition of these machines is little short of miraculous. The brass parts are polished, the steel shining and not a drop of superfluous oil on any painted surface. The writer enquired how this startling result was accomplished and was informed that a prize was given each month to the operating crew which had its machine in best shape every day of the month.

"Then the operators look after the cleaning of their own machines?"

"Yes," said the manager of the plant.

"Are they paid piece work rates for the output?"

"Yes."

"Do they find time while working as operators to clean and polish the machine?"

"All but the moving parts, yes. Those are cleaned in a very few minutes after the machines close down at noon and night."

"As operators all they have to do then is to fill the hoppers with labels and goods and let the machine run?"

"Theoretically, yes, but actually there are many things to look after. The machines may be balky, badly shaped candies may get in and smash up in the carriers, or the labels may curl more one day than the next. In fact, there are many things to be watched to keep a battery of machines like this producing a maximum output.

"But on the whole," continued the manager, "a perfectly clean and properly tended machine runs smoothly until some part becomes worn and that time is pushed far into the future if no sugar, dirt or other abrasive or foreign substance is ever allowed to get in the moving mechanism. When a part is worn it should be *replaced* and not tightened up and tinkered with till the machine consents to function again. Such a repair simply means that the wear has been transferred to other parts, which must in turn wear into harmonious action with each other while the whole machine is being constantly readjusted. This results in a loss of output. Our girls have been brought up on this doctrine and therefore to earn their maximum piece work and possibly the prize they keep everlastingly at the machines. They watch the product as it is put in the hopper and make sure that it is right, for if one piece breaks it means a shutdown while they clean every moving part on the off chance that some sugar might have gotten in. It means cleaning the whole surface of the machine to get off loose dust and finger marks and polishing most of the brass which had to be handled in the operation. We benefit by long-lived machines and a high output. As to the labels, it is true that excessive humidity makes them curl, but we eliminate that problem by controlling the humidity—the whole plant is provided with conditioned air. The only other label difficulty is due to imperfect labels and sticky machines. We tolerate neither."

It sounds a bit Utopian, but seeing is believing, and this plant is open to visitors, the machines, processes and operators are there for the public to see.

The above facts are true of all automatic machines. The cleaner they are kept, the longer they will last, the higher the output will be and the better the grade of work produced. Remember, however, that it is illogical to insist on a machine standing in glistening grandeur and beauty on a filthy littered floor.

What and Why Is a Clean Floor?

Now in this connection let's discuss the relative advantages of a super-clean floor—a floor so clean that even white goods accidentally dropped on it could be gathered up unsoiled and ready to proceed along their journey to the fastidious consumer. In all the factories where these "spotless floors" exist it is strictly against the rules to pick anything off the floor and put it back into production until it has been recooked; in some cases that even is not allowed.

There are several good reasons for this rule. First, the employes spread the story of the plant and inspire confidence in the product. Again, all these examples of scrupulous cleanliness have their psychological effect on each individual employe. He is impressed and feels the standard that the house itself sets. Most important of all is the fact that no matter how carefully a floor is tended and swept and washed, there is bound to be some accumulation of foreign matter brought in on the feet of the workers or worn from the tables or floors

themselves. If it is permitted that goods which fall to the floor may be picked up and put into production, it is certain that sooner or later a piece will get to the consumer which is contaminated or with some foreign matter—evidence of uncleanliness—adhering to it. One dead fly or speck of glass will destroy more public confidence and "consumer acceptance" than a month of solid advertising can build.

Care of Raw Materials in Process

In this connection it is well to think of the electric light bulbs. They can hardly be classed as dirt but they sometimes enter that category with a rush. When one breaks it powders everything in sight with glass and if the containers of sugar and gelatine and glucose and a hundred and one things about the spot are not covered the disastrous results may be very far-reaching. In fact it is impossible to say when complaints will stop coming in or how serious they may be. The piece of glass may be perfectly clean and very small, so small that only the slightest cut may result in the mouth of the one who bit on it still there may be something else present in that mouth which will set up a violent and serious infection and the glass will be blamed by any court. This is right, too, for the bacteria causing the infection probably could not be avoided but the glass had no right there.

Gelatine should always be covered anyway for it is very easily infected by some classes of bacteria and forms a perfect medium of growth when in solution. Some of this bacteria causes the gelatine to liquefy as the colonies grow and will often grow after the goods are made up. Whole batches of marshmallow will sometimes stick together and grow wet in the boxes after they are on the road while others made in the same way stand up. This is often traceable to infection in the gelatine. Sometimes samples of the dry gelatine will prove perfectly steril to all tests and then one may feel reasonably assured that infection crept in during the process. This is easily possible where the dry gelatine is allowed to set about uncovered and almost certain if it is put to soak over night in uncovered and unwashed vessels.

All vessels in which either albumen or gelatine are soaked should be perfectly smooth inside with some lining other than metal or wood and should be provided with tight covers. Even these precautions are of little use if the surroundings are unclean.

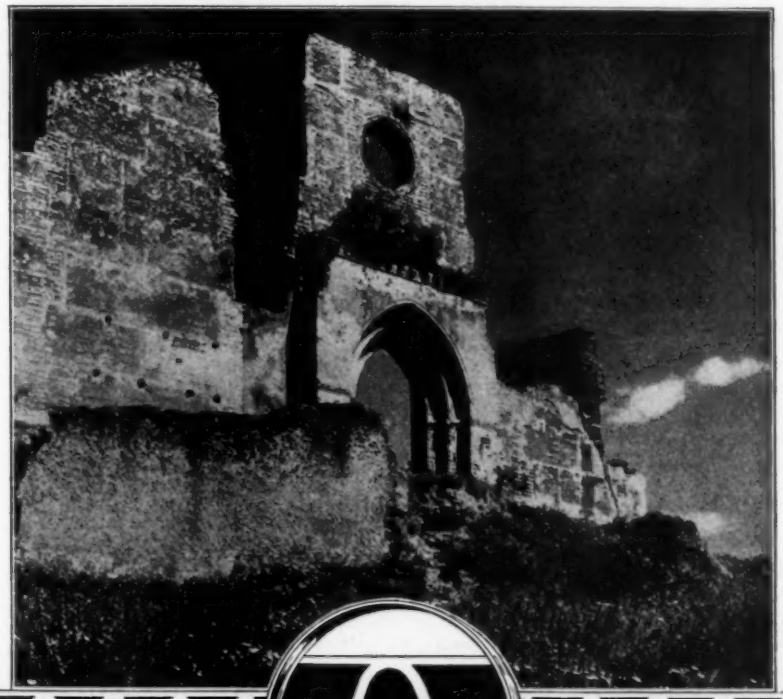
It is doubtful whether bacteria, yeasts, etc., are really understood in full by even the specialists in bacteriology. How they originate and continue to live without being continually in evidence is somewhat puzzling but it seems that combinations of different types will outlive a single isolated colony of one kind. For this reason a collection of filth or dirt in a crack or corner of the plant may propagate active bacteria for a period far outlasting the life of any one of the kinds present were it incubated in the most suitable prepared media known to the bacteriologist. What effect these different types will have on the ingredients entering into candy is often a question. How far reaching the results may be is impossible for any one to say. Probably very few varieties would have any visible effect but the time is sure to come when one bad one will creep in and start something the manufacturer may be unable to finish in any way save through the bankruptcy court.

Every little while some new thing regarding these micro-organisms is discovered until it is now impossible to judge how many of the manufacturing difficulties will not eventually be traced to them. In the meantime the wise manufacturer is insuring himself by keeping his plant and equipment scrupulously clean. The life of any type of bacteria, wild yeast or mould is very short on a dry, smooth, clean surface.

Closely akin to cleanliness is order. In fact there are those who claim that they are inseparable and yet there comes to mind a certain candy plant in New Jersey which is in a class by itself. It is not so *very dirty* but it is in the most perfect condition of disorder which could be conceived. There is no store room and no record kept of incoming material. Everything simply goes on the elevator and is sent upstairs until every place is full then the rest goes down in the basement. If anything is required by a department and the foreman doesn't *see* it he asks the elevator man who says, "Sure I brought it in and I think it went up stairs." Then a search begins which sometimes lasts for hours while the employes wait. If the article in question was ordered and delivered it is surprising how often it is found but if it has not come in the case is hopeless. Possibly the receiving clerk made a record but as like as not he had been sent to some part of the plant to do *useful* work just at that time and missed it. A receiving record is not very well thought of by these people anyway. It is too easy, in their opinion, for the seller to divide with the clerk and get the records faked. It is better always to claim non-delivery and pay for only what the seller can *prove* delivery on. This often results in handsome profits.

Cases of this kind are as disheartening as the prosperous sinner. This particular plant has been in operation for years, growing all the time, and is still prosperous. It is big now, that is it will, if called on, turn out ten or twelve tons a day. However, it is a one-man institution and that one man is growing old without a successor.

(*Continued on page* 38)



All that is left of a wonderful castle in Spain, built during the Middle Ages.—A strong, supporting Arch.

The strength of Mid-West corrugated shipping boxes is the strength of the perfect arch.

You Can DEPEND Upon Mid-West Boxes

You can **depend** upon Mid-West Boxes.
You can **depend** upon their design.
You can **depend** upon the quality of materials in them.
You can **depend** upon their construction.
You can **depend** upon the engineering behind them.
You can **depend** upon their performance.
You can **depend** upon their **high corrugations** to absorb the shocks.
You can **depend** upon them to guard the safety of your goods, when they are beyond your protection.
You can **depend** upon **Mid-West Boxes.**

The increasing use of Mid-West Boxes in your field is entirely due to their filling a need—BETTER.

Write for our free illustrated "Perfect Package" data book. Tells you all about dependable Mid-West Boxes

MID-WEST BOX COMPANY

General Offices
18th Floor, Room 51
CONWAY BLDG., CHICAGO

Corrugated Fibre Board Products

MID-WEST

Factories
ANDERSON, INDIANA
KOKOMO, INDIANA
CHICAGO
CLEVELAND, OHIO
FAIRMONT, W. VA.

Speaking of Cleanliness

(*Continued from page* 36)

The answer to this case is probably that the whole place is in such a constant turmoil looking for lost cases and barrels that there is no time for dirt to accumulate or settle. It is certain that this organization was never guilty of supporting a parasite (?) whose whole life was spent in simply pushing a broom. No stock accumulates for it is shifted and pushed and taken down and replaced until if not used in a few weeks it is worn out anyway. This is a case of succeeding in spite of the conditions not because of them. (The writer has been in this plant many times and has seen all these things again and again or he wouldn't believe it either.)

The writer has tried here to give some real reasons for cleanliness and certainly he believes in it but after all it is more a matter of instinct than anything else. If a man is not going to eat the candy himself and has no clean conscience or instincts there is only the law preventing detestable filth and the fear of destructive infection to prompt him.

Speaking of industrial and personal cleanliness there comes to mind the memories of a certain hardy candy for foreman of the old days who scraped the candy from the sole of his shoe against the sharp metal hoop at the top of an open glucose barrel, spit in the sugar barrel, because the factory law said he must not spit on the floor and remarked in reply to a general criticism, "What do you mean I ain't clean! Don't I boil me socks and overalls up every week? You can see them now in the side kettle of the vacuum pan. Why should I scrape the floor every night; there ain't enough stuff collects in a day to make it worth while?" Fortunately such individuals are pretty well eliminated from the food industries—we believe, however, there remains much to be done in the confectionery field by way of instilling in the minds of both executives and factory workers a pride in candy craftmanship and a sense of responsibility to produce and deliver to the consumer a strictly pure food product.

Atmospheric Exposure on Soft Candy

(*Continued from page* 25)

taining nuts or edible oils, on exposure to the oxygen of the air, often develop an "off" flavor due to rancidity. On the other hand those candies kept under air-tight seals did not lose any moisture or change their flavor or appearance from the time of packing.

It can be seen, then, that all these deteriorating influences or tendencies are reduced to a minimum when the candy is sealed in airtight containers. When so packed, the candy manufacturer can feel assured that his goods are retaining the quality which he has zealously endeavored to incorporate into them.

What Constitutes Purity in Candy?

(*Continued from page* 29)

appeared in one of the large daily papers in the middle west calling attention to certain stores where the store cat was allowed to lounge and sleep on bulk candies, which were later sold to children. This careless disregard of the A B C's of food merchandising on the part of many retailers, works a serious injustice to the consumer and also to the manufacturer, who may have used the best of materials and the best of methods to give the public a pure product. All jobbers, salesmen and retailers should have the importance of this matter constantly brought to their attention with convincing argument of what it means to their profits. They contribute a very important part in seeing that a pure product reaches the consumer. The candy salesmen have a very definite opportunity and responsibility in getting this idea across to the small jobbers and dealers.

Purity in Fact

To sum up: "Purity in fact" and "purity in fancy" are two different entities. "Purity in fancy" often comes in the form of glowing statements used commercially. "Purity in fact" begins with the purchase of pure and clean materials. It follows these materials, guarding and protecting them as they go through the processes of manufacture. It sees that clean utensils and clean methods are used in clean factories. It sees to it that clean, healthy workers are employing clean methods, and it then sees that the final product is put into a proper final package, stored and displayed in a clean, sanitary manner, and delivered to the consumer in the best possible condition.

When the manufacturer has done this sort of a job in the production of his goods and has done his part in safeguarding the purity of his product as it passes through the channels of distribution, the he need have no scruples about using the term "Purity" in his inducements to the public to use his products. His "Purity" is one of fact and not of fancy. The advertising of a food product with such a background is bound to "register" because it has the foundation for a successsful and permanent distribution.

The time has come when manufacturers of pure food products may have their products certified and designated as such by a distinctive label. Where they have conformed in the matters of purity of raw materials and have carried out their processes in a clean, sanitary and hygienic manner, they now have a means of capitalizing the same.

By this certification the public will be able to discriminate between actually pure and theoretically pure products.